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The Second Best Thing About Payday

nih record

ABOVE • *Circus clowns paid their annual call on NIH and R&W once again sponsored an evening at the circus for special groups.* *See story on p. 12*

features

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Any 'Discovery...a Little Bit of Poetry'

Pulitzer-Winning Poet Dove Gives Rall Cultural Lecture

By Carla Garnett

A mixed-race violin prodigy, a self-proclaimed "African prince" and Beethoven (yes, *the* Beethoven). That unlikely trio provides much of the fascinating storyline in poet Rita Dove's latest book, *Sonata Mulattica*. The Pulitzer-winning former U.S. poet laureate offered NIH'ers tantalizing tidbits from her work on Mar. 13 at the 2013 J. Edward Rall Cultural Lecture.

"We need—all of us—to be pushed out of our comfort zones every once in a while," said Dove, beginning her talk after having lunch with postdocs and touring the Children's Inn and a pediatric unit of the Clinical Center. "That's why I send my poetry students to science and math—kicking and screaming—and they come back enriched. I think we're all perpetual students. It's when our minds are open to something

SEE **DOVE**, PAGE 6

Poet Rita Dove responds to audience questions at the 2013 Rall Cultural Lecture in Masur Auditorium, as NIH director Dr. Francis Collins observes.

Probing the 'Diseasome'

Barabási Presents Advances in Network Medicine

By Belle Waring

Physicist Albert-László Barabási's network theory merges with a fundamental need of researchers and clinicians.

Dr. Albert-László Barabási

Since the mapping of the human genome, the amount and structure of the data we're getting means we have to think differently about biological systems and disease pathologies.

Enter the human diseasome. This is all the diseases of an individual or group, viewed as a whole, with special focus on genetic features.

Like its cousins genome, proteome and metabolome, the diseasome (disease + ome) is a totality, a whole field of study and a new approach. And like 17th-century explorers

SEE **NETWORK MEDICINE**, PAGE 4

Become a 'Power Searcher'

Google, Bing Experts Tell How to Optimize Web Searches

By Dana Steinberg

We search the web every day for everything from professional research to fun facts. But those searches often can be frustrating when seemingly thousands of search results pop up. How can we optimize our searches to find the specific information we seek?

Duane Forrester of Bing

Experts from two popular search engines, Google and Bing, offered their advice at a recent seminar, part of the NIH Library's Training Program on new and existing research tools.

There are billions of web pages out there and

SEE **WEB SEARCH**, PAGE 8

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NIH...Turning Discovery Into Health

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briefs

TEDMED Talks To Stream Live at NIH

TEDMED 2013, an offshoot of the popular TED conference series that addresses innovations in health and medicine, will be simulcast live to the NIH community in Wilson Hall, Bldg. 1 on Wednesday, Apr. 17.

The TEDMED simulcast from the Kennedy Center, which is open to all NIH staff, will air from 8:30 to 10:15 a.m., 11:30 a.m. to 1 p.m., 2:30 to 4:15 p.m., and 5:30 to 7:30 p.m. NIH director Dr. Francis Collins returns to the TEDMED stage to talk about the next big leaps in biomedicine during the 5:30 to 7:30 p.m. session

Other TEDMED speakers will include Ryan Panchadsaram, White House senior advisor, Office of Science and Technology Policy; America Bracho, CEO and president, Latino Health Access; Dr. Harvey Fineberg, president of the Institute of Medicine; and Amanda Bennett, executive editor, Bloomberg News. Also on the program are a wide range of leading biomedical researchers, robotics pioneers and computational gurus, patient advocates, songwriters, journalists, an anthropologist, a poet and even tap dancers.

Whether you're an NIH researcher, administrator or student, there's sure to be something at TEDMED that will get you thinking. So mark your calendar now and plan on heading over to Wilson Hall for a taste of TEDMED during your coffee or lunch break.

Speakers are still being announced; for more details on who will be speaking during specific time slots, visit www.tedmed.com/home.

Author Shapiro To Present at DDM Seminar

The Deputy Director for Management (DDM) announces the third DDM seminar of the 2012-2013 series "Management and Science: Partnering for Excellence." The event on Thursday, Apr. 18 from 11 a.m. to 12:30 p.m. in Masur Auditorium, Bldg. 10, will feature Stephen Shapiro, who will present "Accelerating Innovation." He will focus on the importance of accelerating innovation in times of reduced funding, tighter deadlines and fewer resources.

Videocasting and sign language will be provided. Individuals who need reasonable accommodation to attend should call (301) 496-6211 or the Federal Relay Service at 1-800-877-8339. For more information about the series, visit www.ddmseries.od.nih.gov or call (301) 496-3271.

Bike to Work Day, May 17

Celebrate National Bike Month and Bike to Work Day with the NIH Bicycle Commuter Club (NIHBCC), Friday, May 17, from 7 to 9:30 a.m. on the Paul Rogers Plaza in front of Bldg. 1 and off-campus at Rockledge and Rockville, near the new NCI Shady Grove building. The off-campus pit stops run from 6:30 to 8:30 a.m.

At the NIH pit stop, those who show up riding a bicycle and wearing a helmet may enjoy breakfast snacks and participate in a raffle including such prizes as cycling gear and equipment and Fitness Center memberships. All pre-registrants get a free Bike to Work Day T-shirt (you may want to bring a print confirmation of your registration as back up).

If you have never tried commuting by bike to NIH and aren't sure how to begin, explore the Commuting link at www.recgov.org/r&w/nihbike/. The NIHBCC offers advice on topics ranging from purchasing a bicycle to favorite NIH commuting routes from all over the D.C. area.

Bike to Work Day is a rain or shine event. Volunteers are always needed to help with preparations before or on the day of the event. If you would like to help, email Jonathan Mazal (mazaljr@mail.nih.gov).

NIH Career Symposium Helps Build Your Career, Shape Your Future

The NIH Office of Intramural Training & Education invites all NIH graduate students and postdoctoral trainees, both basic scientists and clinicians, to participate in the 6th NIH Career Symposium on Tuesday, May 14 at Natcher Conference Center from 8:30 a.m. to 5 p.m. The symposium provides an opportunity for fellows and graduate students to learn about scientific career options and to explore factors that lead to career success. The keynote speaker will be Dr. Alan Leshner, chief executive officer of the American Association for the Advancement of Science. Panel sessions cover academic, government, industry and non-profit career paths. More than 80 speakers will provide insights into their careers: what their current job entails, its pluses and minuses and how they got there. For more information visit www.training.nih.gov.

6th Annual Free Community Shred Day

On Tuesday, Apr. 23, from 4 to 7 p.m., the FAES, in collaboration with Torn2Shredz, will sponsor a Free Community Shred Day. Bring up to 4 bankers boxes worth of personal documents for free destruction and recycling. Limited compact fluorescent light bulb and battery recycling will also be available. Watch on closed-circuit TV while your old bank and credit card statements are destroyed and then sent for recycling. The event, in observance of Earth Day, will be held at the FAES Social & Academic Center, 9101 Old Georgetown Rd., across the street from NIH on the corner of W. Cedar Lane and Old Georgetown. For more information contact Rose McNeely, (301) 530-2194, FAESSAC@gmail.com.

Dr. Jon R. Lorsch has been named director of the National Institute of General Medical Sciences.

PHOTO: MIKE CIESIELSKI

Hopkins' Lorsch To Lead NIGMS

Dr. Jon R. Lorsch, a professor in the department of biophysics and biophysical chemistry at Johns Hopkins University School of Medicine, has been selected as director of the National Institute of General Medical Sciences. He expects to begin his duties as NIGMS director in the summer, taking the reins from Dr. Judith Greenberg, who has served as acting director since July 2011 after the departure of Dr. Jeremy Berg.

Lorsch will oversee a $2.4 billion budget, which primarily funds more than 4,600 research grants (about 11 percent of those funded by NIH as a whole) as well as a substantial amount of research training and programs designed to increase the diversity of the biomedical and behavioral research workforce.

A leader in RNA biology, Lorsch studies the mechanics of translation initiation, a major step in controlling how genes are expressed. NIGMS, the National Institute of Diabetes and Digestive and Kidney Diseases and the National Institute of Mental Health have funded his work. Lorsch plans to continue his scientific studies in a lab at the National Institute of Child Health and Human Development.

Lorsch is as dedicated to education as he is to research. During his tenure at Johns Hopkins, he led efforts to reform curricula, to develop a graduate biomedical education center and to launch a summer research program for local high school students, many from groups that are underrepresented in the biomedical and behavioral sciences.

As Greenberg said of Lorsch in a blog post announcing his selection to NIGMS grantees, "He brings a passion for science, a commitment to education and demonstrated leadership. We very much look forward to welcoming and working with him."

NEI director Dr. Paul Sieving gives an "audacious goals" charge for innovative research.

NEI 'Audacious Goals' Meeting Shapes Future of Vision Research

President Kennedy's May 25, 1961, challenge to Congress and the nation helped launch a man to the moon and spurred major advances in science and engineering. The National Eye Institute is now considering its own "moonshot." This past February, NEI called together a group of about 200 scientists, physicians, engineers, venture capitalists and philanthropists to help look into the future and identify bold and innovative directions in vision research—what the institute refers to as Audacious Goals.

"Given the remarkable tools of biology developed during the past decade, can we leverage collective action to accomplish something big and remarkable over the next 10, 12 or 15 years? Can we imagine doing something that would not happen on its own without coordinated action?" asked NEI director Dr. Paul Sieving, in his charge to participants at the start of the recent meeting held at the Bolger Center in nearby Potomac, Md. "We are here at the Audacious Goals Development Meeting to give rational, balanced thought on how to proceed."

"The idea, here, is to have a bold vision for vision," said NIH director Dr. Francis Collins, who helped frame the meeting in his remarks before the group. "I think this is a wonderful idea that Paul, colleagues and the National Advisory Eye Council have come up with to really challenge the field to think beyond the usual next-steps approach into something longer term and potentially revolutionary." Collins went on to say that the vision community has played a large part in advancing biomedical research, noting recent breakthroughs in population genetics, stem cells and gene therapy.

The meeting was part of the Audacious Goals Initiative that NEI is conducting to stimulate innovation and set priorities within the vision research community. NEI launched the initiative in August 2012 with a request for public input and a cash prize competition. In fall 2012, nearly 500 people from around the country submitted ideas through the challenge. After de-identification of the one-page submissions, a group of 80 scientists from across the country winnowed these to the top 80 entries. A panel of federal scientists reviewed the top entries and named 10 winners.

The 10 winning ideas were categorized into six broad topics for participants to discuss at the meeting. After nearly 2 days of facilitated brainstorming, the participants proposed the following goals:

Eliminate age-related eye disease; preserve and restore vision for patients affected by many forms of eye disease through the delivery and modification of genetic information; develop a comprehensive systems-based model of vision; develop comprehensive maps of visual function in health and disease; restore sight by regeneration of the neural retina; restore useful vision to people who are blind due to retinal disease, using prosthetics, optogenetics or small molecules.

With help from its advisory council, NEI is now weighing the proposed goals and other ideas generated from the meeting as it establishes a final set of audacious goals and strategies and begins to set them in motion.

For more information about the initiative, visit www.nei.nih.gov/agmeeting/.— **Dustin Hays**

NETWORK MEDICINE

CONTINUED FROM PAGE 1

circumnavigating the globe, we have only a partial map, which we revise as we sail.

Barabási stands among the first NIH-funded scientists to discover a new diagnostic model using scale-free networks, a model that explains their emergence in systems from the cell, to the cell phone to the diseasome.

His recent talk in Masur Auditorium—"Network Medicine: From Cellular Interactions to Human Diseases"—drew a large audience.

Barabási, who directs the Center for Complex Network Research at Northeastern University, holds appointments in physics, biology and computer/information sciences. He began with a simple analogy.

"A broken car with a smoking engine and dysfunctional lights has many similarities to human disease," he said. "But there is one huge difference. It's virtually guaranteed that if you take the car to the mechanic, he or she will be able to fix it. And that's not something that we can say about many of our diseases. The mechanic has the spare parts…and that is about where we are in medicine. What the genome project really provided us with is the parts… the genes, the proteins, the metabolites."

These parts in the human cell are so interdependent that disease is rarely caused by a single abnormal gene. Instead, disease reflects a disturbance in complex networks within the cells. Network medicine is a holistic approach for investigating these networks.

"The other thing the mechanic has," Barabási continued, "that the medical doctor does not have, is the wiring diagram, the blueprint of the car. How are the different components wired together? This is what the secret of medicine has to be: to understand this wiring diagram."

Barabási explores both the molecular complexity within a given disease and among different phenotypes. These are individuals or groups with physical characteristics that are genetically and environmentally influenced, as in cases of asthma.

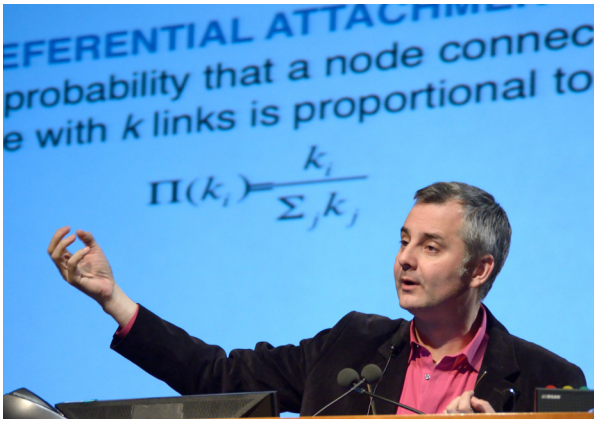
"Diseases correspond to a breakdown of a region of the network of the disease module," said Barabási, "and we will not be able to map out those disease modules until we have a good understanding of the network as a whole."

This is important because, for more than 40 years, scientists believed that complex networks were completely random.

Yet Barabási and his colleagues were surprised to find that, in fact, each of these networks was not random, but rather a scale-free system of nodes—connecting points—and links.

These look like a map of U.S. airport connections, or a power grid where the nodes are generators, transformers and substations, while the links are transmission lines.

What makes such a network scale-free? Some nodes seem to have a limitless number of connections, as in the World Wide Web, or cellular metabolic networks.



Barabási explains the power of the diseasome map.

PHOTOS: BILL BRANSON

"The popular nodes, called hubs, can have hundreds, thousands or even millions of links," he said.

Such networks have other important properties as well. For example, they are robust against accidental failures—their numerous interconnections seem to compensate for them. Yet they are vulnerable to coordinated attacks.

"For the larger scale-free networks, you can remove 95 percent of the nodes and it will be okay," said Barabási. "But if you attack big nodes, it breaks down." If Chicago's O'Hare International Airport, a major hub, went offline, the effect on air travel would be huge.

Furthermore, "rapid advances in network biology show that cellular networks are governed by universal laws," Barabási said.

The laws of scale-free networks appear to apply equally to cells, computers and the World Wide Web, as well as human groups connected by email or by collaborations in science, art and business.

So Barabási's "wiring diagram" would show the common genetic origin of many diseases. It would also reveal the interplay between the cell's network organization and certain heritable diseases.

Identifying hub molecules involved in a given disease could lead to biomarkers and new drugs to target the hubs. Advances are also essential for finding new disease genes and understanding disease-associated mutations.

"Many diseases share genes," Barabási said. "Is this meaningful? Yes. Connected diseases show significant comorbidity [co-occurrence]. All the data that we have access to indicate that disease genes are clustered in well-defined neighborhoods of the network."

His kinetic slides of whirling networks inspire the same kick you feel at finding your own home with geo-mapping software. As you zoom to your block, then zoom out to planet Earth, you are jumping scale and can intuitively grasp how complex systems have structures that are repeated.

What Barabási does is offer convincing proof of that underlying architecture.

"It's data-dependent. The diseasome map now is like a skeleton," he said. "We could make it complete and it could have just as much power as the genome project has provided."

Former Rep. Louis Stokes (l) and his wife Jay pose with NIH director Dr. Francis Collins at the portrait unveiling. PHOTOS: ERNIE BRANSON

Admiring the new portrait are (from l) Stokes, NIMHD director Dr. John Ruffin and Collins.

Stokes' Portrait Unveiled at Bldg. 50 Ceremony

There will henceforth be a sense that the boss is looking over NIH officials' shoulders as the Louis Stokes Laboratories (Bldg. 50) gained a portrait of its namesake during a brief ceremony Mar. 22 in the building lobby, where the near-lifesize image will greet all who enter.

Known, during his 30-year career as a congressman from Ohio, as a persistent and emphatic champion of extending the benefits of biomedical research to all people, especially populations suffering health disparities, Stokes was in a kindly mood at the unveiling.

"I want you to be a part of everything me and my family feel about this day," he told a small gathering that included NIH director Dr. Francis Collins and a number of institute and center directors, as well as hosts from the Foundation for the National Institutes of Health, who sponsored the occasion. "This is one of the most memorable and beautiful days of my life."

Prior to Stokes' remarks, Dr. John Ruffin, director of the National Institute of Minority Health and Health Disparities, made light-hearted but pointed mention of Stokes' insistence that NIH make health disparities a research priority. Ruffin explained that Stokes, who served on the committee overseeing NIH's budget, was known to become impatient with NIH testimony on Capitol Hill. It could be a tad too "eloquent"—whether spoken or written—when it came to disparities; Stokes simply wanted his questions answered.

Stokes chats with NIAID director Dr. Anthony Fauci (c) and NIH deputy director for intramural research Dr. Michael Gottesman.

"Mr. Stokes is all about the bottom line," Ruffin said, "and this portrait is the bottom line—a symbol of how we feel about you." He called Stokes "the people's congressman," and said the portrait symbolizes the barriers Stokes overcame. "It is a signal that his legacy will ever be alive…a reminder that if you stay committed to that which you believe and refuse to take no for an answer, you can succeed."

"It is indeed a pleasure to be able to have you back with us," said Collins. "We are honored and delighted that you are here…and we greatly respect what you have done for NIH."

Collins noted that his own laboratory is on the building's fifth floor, so he will often be reminded of Stokes' legacy. NCI director Dr. Harold Varmus also has a lab in Bldg. 50 and sent word that "we miss having [Stokes] on the Hill."

Dr. Maria Freire, president of FNIH, called Stokes "a champion of biomedical research" and called his likeness "striking and wonderful… [Stokes] has provided hope for the future of science, and for the work reflected in this building."

The building was dedicated in June 2001, at which time a commemorative plaque was installed. The portrait of Stokes, originally unveiled at last December's health disparities summit, was completed by Robert Hartshorn.—**Rich McManus**

IntraMall Spring Showcase, Apr. 17-18

The NIH IntraMall Spring Showcase will be held in the South Lobby of Bldg. 10 on Apr. 17-18 from 9:30 a.m. to 2 p.m. The event is hosted by the IntraMall electronic purchasing site designed exclusively for NIH to simplify purchasing.

Since opening in June 1998, the IntraMall has become a leading NIH web site for using government purchase cards to locate, buy and track purchases from more than 300 of its most frequently used suppliers, offering over 12 million lab, office and computer items.

Register for the event and a free lunch from the web site http://intramalls.com/showcase, where a daily list of vendors is displayed. If you need reasonable accommodation to participate, call (888) 644-6255 between 8:30 a.m. and 5 p.m.

DOVE

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***Above**:*
CC director Dr. John Gallin (r) and Dr. Deborah Merke (l), chief of the CC pediatric consult service, talk with Dove and her husband, author Fred Viebahn, about the Clinical Research Center.

***Below**:*
Dove accepts a certificate of appreciation recognizing her lectureship from Collins.

PHOTOS: ERNIE BRANSON

new—and sometimes a little frightening—that the old-and-familiar gets refreshed and energized."

Common Ground

Introducing Dove as his "friend for more than a decade," NIH director Dr. Francis Collins said she has "poetry in her heart and mind, but science in her DNA." Dove's father Ray broke the color barrier in the tire industry as the first black research chemist at Goodyear.

Musing aloud about the confluence of art and science, Dove, Commonwealth professor of English at the University of Virginia, said, "I've often felt that at the very edges of any kind of discovery—be it historical or scientific—there's always a little bit of poetry and imagination involved."

'*If* was at the beginning…'

Dove's *Sonata Mulattica*, which tells the "story of someone who has been forgotten," is not easily pigeonholed in the literary world. Reviewers, she said, have alternately called the work a poetic sequence (although it has a play in the middle), a verse novel (although all the people and facts in it are true) or a long poem (although the book contains 84 separate poems).

The main character, George Augustus Bridgetower, was born in 1780 to a white Polish mom and a black African dad, a lothario who claimed to have royal blood. In early childhood, young Bridgetower's extraordinary talent as a violinist was discovered (by Austrian composer Joseph Haydn, no less), leading his father to take him on the road for performances.

"'*If* was at the beginning,'" said Dove, reading from *The Bridgetower*, the book's first poem. In that one word, "if," she seemed to impart all the possibilities of the young phenom's improbable life. In that one poem she offered all the facts of his life while still leaving the audience hungry for more. Masur Auditorium was silent, spellbound.

Intrigue Remains

Over the course of the next 50 minutes or so, Dove read several more poems—*What Doesn't Happen*, *The Wardrobe Lesson*, *Black Billy Waters at His Pitch*, *The Undressing*, *Ludwig von Beethoven's Return to Vienna*, *The Performer*—disclosing details of Bridgetower's life, weaving his fascinating story but cleverly leaving its central mysteries intact. Her audience was compelled then to learn how, in 1803, the gifted musician against all odds becomes a friend of musical mastermind Beethoven. And why does Beethoven stop work on the famed *Third Symphony* to compose *Violin sonata No. 9 in A major* (*The Kreutzer sonata*), which he first dedicated to Bridgetower? And then how, just as suddenly in a single encounter, does Bridgetower manage to offend the genius and die decades later in virtual obscurity and poverty?

Dove's book, which she researched exhaustively using personal journals and diaries of the time, covers the violinist's lifespan until he dies at age 80.

Science, Poetry Both Intimidate

During Q&As, Collins asked Dove if the two cultures of science and art are getting any better at communicating and gaining from each other's strengths.

"I think our society is both in love with science and a little afraid of science because of its technological edge, its sense of impersonality, its sense, perhaps, of diminishing rather than enhancing humanity—those anxieties are out there," he said. "Certainly the folks in this room, having come to hear you, greatly value both the opportunity to study nature with its rules of science, but also to enhance our own experience through art, through language, through music… and yet there's the opinion that we're not as good at bringing those together as we once were a few centuries ago."

"I think we're getting better," Dove replied, offering an anecdote about a chance encounter with a stranger during a train ride. After some initial mutual wariness—probably because of the perceptions Collins had mentioned—the two finally disclosed their livelihoods: the stranger happened to be a molecular biologist. The poet and the scientist ended up sharing a

Dove talks with Dr. Roland Owens, assistant director of NIH's Office of Intramural Research.

2-hour conversation about common elements in their respective professions.

"People are afraid of poetry in the same ways they are afraid of sciences," she said. "I thought, here we are hiding inside our own little cages of fear…But I think social media is helping. More of the world is open to you, day or night…That's superficial knowledge, but I'll take that at first and then we'll work from there."

The 2013 Rall Cultural Lecture is archived online at http://videocast.nih.gov/launch.asp?17851.

Alzheimer's Disease-Related Dementias Workshop Set, May 1-2

NINDS will sponsor a 2-day workshop, "Alzheimer's Disease-Related Dementias: Research Challenges and Opportunities," May 1-2 in the Natcher Conference Center. The meeting—organized in collaboration with NIA, the Alliance for Aging Research, the Alzheimer's Association, the Association for Frontotemporal Degeneration and USAgainst Alzheimer's—will bring together leading national and international scientists to discuss research on Alzheimer's disease-related dementias.

The workshop is part of the implementation of the 2012 National Plan to Address Alzheimer's Disease. The goal is to develop recommendations for research priorities on the Alzheimer's disease-related dementias, which were defined in the plan as the frontotemporal, Lewy body, mixed and vascular dementias. Health disparities and specific diagnostic issues also will be addressed. Opportunities for public comment will be available during open discussion and question periods.

Registration is free and open to the public. To learn more and register online, visit www.ninds.nih.gov/ADRelatedDementias2013.

We Can! Featured at 'Let's Move Faith and Communities' Event

Shown at the event are (from l) Melissa McGowan, public health advisor in NHLBI's Division for the Application of Research Discoveries (DARD); Karen Donato, deputy director of DARD; Vanetta Keyes, We Can! community site leader; Dr. Melinda Kelley, health policy analyst in DARD; and Dr. Gary Gibbons, director of NHLBI.

On Mar. 7, NIH's We Can! (Ways to Enhance Children's Activity & Nutrition) program was highlighted during a Let's Move! anniversary event at the Eisenhower Executive Office Bldg. in Washington, D.C. First Lady Michelle Obama honored the work of organizations that have joined the Let's Move Faith and Communities (LMFC) initiative and talked about how critical their actions are to helping children maintain a healthy weight.

LMFC's mission is to train, educate and equip faith- and-community-based health leaders with best practices and resources to help them create opportunities for making healthier choices, provide access to healthy, affordable food and encourage increased physical activity. The initiative currently includes about 800 organizations as well as 40 national partners such as the Seventh-day Adventists and the National Baptist Convention.

We Can!'s partnership with LMFC was one of three featured during the event. The other two were the USDA's Summer Feeding Service Program and the President's Council on Fitness, Sports & Nutrition's new initiative promoting physical activity in schools.

HHS Secretary Kathleen Sebelius's counselor for science and public health Caya Lewis remarked on the key role of community partnerships in implementing important health initiatives. She also introduced NHLBI director Dr. Gary Gibbons, who expressed his excitement for the collaboration between We Can! and LMFC. Gibbons acknowledged the NIH partners who work with NHLBI on We Can!, including NIDDK, NICHD and NCI.

Gibbons said that while the goals of We Can!—helping families eat healthier and move more—seem simple in concept, changing behaviors for a lifetime is difficult. Collaboration is critical, said Gibbons, who noted that the We Can! program actively engages community leaders in partnerships that turn NIH-supported research into real-world improvements in health around the country. By working together, We Can! and LMFC can reach more families and communities and help them to maintain healthy lifestyles through eating right, getting active and reducing screen time.

Earth Day Celebration, Apr. 25 on Bldg. 1 Lawn

NIH will celebrate Earth Day on Thursday, Apr. 25 from 10 a.m. to 2 p.m. on the lawn of Bldg. 1. This year's celebration includes a variety of activities, interesting tidbits, take-home information and fun. Everyone is welcome to attend. You can learn: how to reduce your carbon footprint at work and home, how to compost, what alternative fuel vehicles we have at NIH, what you can recycle and more. Visit the Scales and Tales tent to learn about wildlife and other natural resources, take part in a nature walk to view NIH's stream restoration and local wildlife and remember to pick up an azalea seedling to plant at home.

In addition to the activities, lunch will be available courtesy of Chick-fil-A, Thatsalata, Curley's BBQ and Ben and Jerry's Ice Cream. A full list of events can be found at http://nems.nih.gov/pages/earthday.aspx. For more information or to volunteer at the event, contact Danita Broadnax at broadnaxd@mail.nih.gov.

WEB SEARCH

CONTINUED FROM PAGE 1

***Right**:*
Daniel Russell (l), a research scientist at Google, sparred in a friendly way with Forrester, his counterpart at Bing.

PHOTOS: BILL BRANSON

fresh content gets added every day. Search engines can find information fast; they can search the full text of articles and they can refine larger searches. Duane Forrester, senior product manager at Bing, and Daniel Russell, a research scientist at Google, agreed it's wise to broaden your search by looking across multiple web browsers and search engines.

Search results will vary on different search engines because they rank results differently, an important distinction since most people only view the top few results.

"It's worth it to understand what you can do on one engine vs. the other, because using them together—using all of the resources available to you—is what makes you a power searcher," said Russell.

In Bing and Google, most search criteria are interchangeable with slight variations in capabilities and search operators (see sidebar).

Changing search criteria can provide additional coverage, noted Josh Duberman, a research librarian at NIH, who introduced the panelists.

NIH staff have vast resources at their fingertips. On the NIH Library site, under Research Tools, the A-Z link offers a comprehensive list of databases. You can also check out the latest classes and training or sign up for news alerts.

"People want to engage with fresh content, and fast," said Bing's Forrester. Search engines need to understand what users want to give the best possible results. When searching for "subway," are you looking for a train or a sandwich? It's also challenging to manage among different devices, platforms and services.

To build better results, Bing and other search engines use social media to gather personal data. If you don't want your personal information influencing your search, Forrester advises logging out of social media networks first.

"The searches you do historically influence the searches that come back to you in the future," he said. "In a research scenario, that may be detrimental to what you're looking for because it may continue to bring up things you've already dealt with and don't want to see anymore."

In Bing and Google, clicking the wheel icon in the upper right lets you modify search preferences such as how many results appear per page.

Through a series of exercises, Google's Russell demonstrated how to solve seemingly impossible problems with the right search combinations. Good researchers, he said, "chain together a set of resources. They do a set of operations on the data they have."

Understand what's out there to be found, advised Russell, then figure out where the content is located and how it's organized. It's important to know when to stop or switch approaches. When failing,

Research Toolbox

NIH Library: http://nihlibrary.nih.gov

- ABOUT US tab, under announcements:
  - Classes and training listed
  - Register for library email alerts
- RESEARCH TOOLS tab: access databases

Take a free web search class at the NIH Library: LS100—Web Search: Thinking Beyond Google.

Check out targeted search engines such as:
- Google Scholar: scholar.google.com
- Microsoft Academic Search: http://academic.research.microsoft.com/

Russell's blog on search challenges & solutions: http://searchresearch1.blogspot.com/

Search Tips

- Ctrl-F (Command F on a Mac) to search a word or term within a document
- Examples of popular search operators (note: you can string them together for even more refined results):
  - AND (use in Bing; has no effect in Google)
  - OR (Google and Bing)
  - Define [term]
  - Filetype:[ext] such as pdf or ppt
  - Site:[domain]
  - Inurl:[text] example: inurl:brain site:nih.gov
  - intext:[term] (Google). In Bing, use inbody:
  - Double quotes [" "] to group words together
  - NOT (Bing), minus sign with no space after (Google) to remove extraneous words
  - Proximity search:
    - "term1" AROUND(n) "term2" where n is the maximum number of words that separate term1 from term2 (Google only);
    - "term1" NEAR: "term2" (Bing only)

For more search operators

Bing: http://msdn.microsoft.com/en-us/library/ff795620.aspx

Google: https://sites.google.com/site/gwebsearcheducation/advanced-operators

Russell and Forrester's exchanges brought to mind the television ads where Mac and PC square off against one another.

try to think through the problem in different ways. Synonyms help. When choosing keywords, think about how somebody else might describe the term.

Search using simple, obvious language first. Also try "related searches" to view the results of others who searched for that information. Another time-saving tip is hitting Ctrl-F simultaneously (Command F on a Mac), which lets you search a word or term in the document, especially useful for finding something specific in long documents.

Expert searchers know what's possible and use more than one resource, said Russell. For more deductive reasoning, he advised using a reverse dictionary, such as onelook.com, where you enter the definition and it provides the term. Drawing on multiple resources can help you link results and cross-reference data, as can chaining search operators together, such as site:nih.gov inurl:directorsblog intext:"vaccine patch." Of course, if you're looking for vaccine patch and you're already on the Director's Blog page, you can use Ctrl-F and type the term.

"Do not just read the snippet to find your answer," advised Russell. Phrases there could be out of context. "Read the whole page or read 2 pages from different sources," he said.

Russell showed a photo of a beach and asked where it was. The clue: a steatite statue's right hand points to this beach. First, look up steatite, he said, which we learn is soapstone. Looking up statue and soapstone leads to Christ the Redeemer in Rio de Janeiro. Next, Google Earth shows us that the right hand points to two beaches; the street view in Google Earth or Google Maps clinches the query: Copacabana Beach.

More information and capabilities are continually added, said Russell. "It's one of the greatest creative tensions between Bing and Google and it does nothing but make your life better." Because search tools are updated frequently, consider professional development and training to stay on top of them.

NIAMS director Dr. Stephen Katz (l) and deputy director Dr. Robert H. Carter (second from r) welcome new members to the institute's council. Shown are (from l) Dr. Edward A. Rankin, Dr. Martha M. Murray, Dr. Sherine E. Gabriel and Dr. Elizabeth J. Shane.

NIAMS Welcomes Four New Council Members

The National Institute of Arthritis and Musculoskeletal and Skin Diseases recently appointed four new members to its advisory council.

Dr. Sherine E. Gabriel is dean of the Mayo Medical School, the William J. and Charles H. Mayo professor and a professor of medicine and epidemiology at the Mayo Clinic in Rochester, Minn. Her research has focused on elucidating the risks and determinants of heart disease in people who have rheumatoid arthritis.

Dr. Martha M. Murray is an associate professor in the department of orthopaedic surgery at Harvard Medical School and an orthopaedic surgeon at Boston Children's Hospital and Beth Israel Deaconess Medical Center. Her research focuses on the stimulation of tissue healing inside the joints, particularly the anterior cruciate ligament and the meniscus of the knee.

Dr. Edward A. Rankin is chief of orthopaedic services at Providence Hospital in Washington, D.C., a clinical professor in the department of orthopaedic surgery at Howard University College of Medicine and a clinical associate professor at Georgetown University School of Medicine. He is also an orthopaedic surgeon in private practice in Washington, D.C., and has served as past president of the American Academy of Orthopaedic Surgeons.

Dr. Elizabeth J. Shane is a professor of medicine at New York-Presbyterian Hospital, Columbia University, College of Physicians and Surgeons, where she is vice chair of medicine for clinical and epidemiological research. Her research interests include osteoporosis in premenopausal women, bone disease associated with HIV infection, osteoporosis associated with organ transplantation and other secondary forms of osteoporosis.

A Long Winter's Last Gasp

Stop what you are doing and congratulate yourself. You have recently survived the most prolonged pseudo-winter in many years. Weeks after the daffodils began blooming in front of Bldg. 31, a Mar. 25 snowfall—at perhaps 2 inches, one of the most lavish coatings in 3 years—decorated the trees outside Bldg. 37. Nature saved her prettiest snow of the season for last (we hope).

PHOTO: DAWN WALKER

milestones

OER's Ulane, a Lifelong Mentor to Research Trainees, Passes Away

By Manju Subramanya

Dr. Rodney Ulane, NIH research training officer and director of scientific programs at OER, died Mar. 7; at right, circa 1975, Ulane, then a fellow in NIAMDD's Laboratory of Biochemistry and Metabolism, plays lead alto saxophone in the 18-piece NIH Dance Band.

When Dr. Rodney Ulane was called upon to present at seminars, he was not enamored of the structured presentations he had to give. Instead, a lot of his conference time was spent in hallways, talking one-on-one to postdoctoral students and young faculty and mentoring them on their career path.

"He had a great love of students," said Dr. Sally Rockey, NIH deputy director for extramural research and OER director. "We are so devastated by his passing. He was so instrumental in advancing our training here."

Ulane, who was the NIH research training officer and director of scientific programs at OER, passed away unexpectedly on Mar. 7. He was 69.

His role at OER was to administer current research training policy and to set the agenda for the future direction of training for the biomedical workforce.

Ulane, who had a Ph.D. in microbiology, joined NIH in 1971 as a research scientist and scientific administrator at what is now NIAMS. His first NIH career included positions at NICHD, CSR and NIGMS.

After 20 years at NIH, Ulane left in 1991 to become associate dean at the University of Texas Southwestern Medical Center in Dallas and run the M.D./Ph.D. program until 2004, when he left to run a similar program at New York University School of Medicine as associate dean.

"Rodney Ulane was a caring father to a generation of M.D./Ph.D. students," wrote Dr. Michael Brown, Nobel laureate and molecular genetics professor at UT Southwestern, in the online guest book about Ulane. "He recruited them, mentored them and took immense pride in them when they graduated."

While in academia, Ulane was a force in the Association of American Medical Colleges' (AAMC) Graduate Research, Education and Training (GREAT) group and its M.D./Ph.D. section. "Rod was a fixture within the GREAT group community because of his passion for educating the next generation of scientists," said Dr. Jodi B. Yelling, GREAT group program leader. "He will be greatly missed."

Ulane returned to NIH in 2009, joining OER, where he brought his rich academia experience to bear on his job of research training. "Having been a colleague, he had the respect of the people in academia who receive our funding," said Dr. Sherry Mills, director of OER's Office of Extramural Programs. "When we floated a new proposal, he could take the temperature from former colleagues and offer that perspective to NIH leaders."

Outside of work, Ulane had many passions including jazz music and model trains. He would often poke his head around a colleague's office to talk about jazz legends or recommend a new jazz artist. Reading the Sunday *New York Times* with coffee was a sacred ritual. He kept these passions going despite working long and hard hours.

Ulane's crowning achievement was his recent work pulling together input from NIH institutes on the recommendations for future training of the biomedical workforce (BMW) issued by the NIH advisory committee to the director.

"He was particularly instrumental in the BMW initiative," said Rockey, who co-chaired NIH's biomedical workforce task force. "His passing was so unexpected. We will pick up the pieces and see these programs through as a testament to him."

Ulane is survived by his wife of 43 years, Marta, and grown children, Christina and Paul. Fittingly enough for a man who mentored physician-scientist graduates throughout his career, colleagues noted, Christina earned an M.D./Ph.D.

NINDS Mourns Former Program Director McCutchen

By Shannon E. Garnett

Dr. Charlotte McCutchen, a former program director in the NINDS systems and cognitive neuroscience cluster, died Sept. 11, 2012, after a long battle with neuromuscular disease.

"Charlotte was an incredible mentor and advocate for young investigators," said former NINDS fellow and current grantee Dr. Beth Malow, a professor at Vanderbilt University Medical Center. "She was passionate about sleep research."

McCutchen was born in 1944 at the Camp Lejeune Marine base in North Carolina. She earned a bach-

elor's degree in biology from the University of South Carolina in 1966 and degree in medicine from the Medical College of Virginia in 1970. She completed a neurology residency at Vanderbilt University and served as a fellow in clinical neurophysiology and epilepsy at the University of Washington in Seattle.

In 1977, she became an assistant professor in the department of neuroscience at the University of California San Diego School of Medicine. She also directed the clinical neurophysiological and epilepsy programs at the San Diego VA Medical Center.

McCutchen moved to Georgetown University School of Medicine as an associate professor in the department of neurology in 1984, and continued her work with veterans at the D.C. Veterans Administration Medical Center, where she directed the sleep disorders program as well as the neurophysiological and epilepsy programs.

In 1990, McCutchen joined NINDS as a health scientist administrator and program director, overseeing the sleep neuroscience and epilepsy research grant portfolios.

"While Charlotte was at NIH, she and I collaborated in many aspects, scientifically as well as socially, and we had frequent conversations about what was going on around NIH and beyond," said Dr. Susumu Sato, a neurologist and former chief of NINDS's EEG laboratory. "Whenever she came to the lab, she really enjoyed meeting, talking to and mentoring my fellows and visiting scientists. We also worked on intriguing sawtooth waves and published several papers together. At the same time, I'll never forget the fun times we had gathering at her house in Virginia, eating at Chinese restaurants and visiting my house."

McCutchen retired from NINDS in 2000 and moved back to California to consult in sleep research and neurophysiology. She also continued her mission of mentoring students.

According to all who knew her, McCutchen loved life. "Charlotte had a great sense of humor," said Malow.

McCutchen was a talented storyteller, loved to reminisce with friends and was devoted to animals and gardening. She is survived by her sister, Lilla McCutchen Richards of McLean, Va., her two dogs—Ditsey and Mitzy—and her cat Harley.

Bioinformatics Expert Joins NIGMS

Dr. Veerasamy "Ravi" Ravichandran recently joined NIGMS as a program director in the Division of Biomedical Technology, Bioinformatics, and Computational Biology. He will manage the Biomedical Informatics Research Network initiative and some Biomedical Technology Research Center grants in the areas of informatics and computational biology. Previously, Ravichandran was a scientific fellow in the FDA Laboratory of Molecular Virology. Earlier in his career, he was a staff scientist at NINDS, a research scientist at the National Institute of Standards and Technology and an associate research scientist at Yale University School of Medicine and the University of Pennsylvania. Ravichandran conducted postdoctoral research as an IRTA fellow in the NCI Laboratory of Pathology and Experimental Immunology Branch. He earned a bachelor's degree in chemistry, master's degrees in biochemistry and philosophy/clinical biochemistry and a Ph.D. in biochemistry from the University of Madras in India. Ravichandran also earned a master's degree in computer science and bioinformatics from John Hopkins University.

volunteers

Overweight Volunteers Needed

NICHD is looking for men and women ages 35-70 who are overweight and have abnormal glucose levels. After an initial screening visit for general health assessment, participants will undergo treatment with a cortisol-blocking medication (mifepristone) or a non-active pill (placebo) for 7 days. Each participant will take both study agents with a gap of 6 to 8 weeks between the two. Testing before and after treatment with the study medications will include blood drawing over 24 hours, urine collection, an oral and an intravenous glucose tolerance test and 1- to 2-day overnight inpatient stay. Compensation will be provided. For more information, call 1-800-411-1222 (TTY 1-866-411-1010) and refer to study 11-CH-0208.

Toddlers Needed for Autism Study

NIMH researchers are conducting a study on language delays in toddlers 10 to 20 months old. This study seeks to learn the risk factors for autism by studying the behavior and brain functioning of toddlers with early communication delays as well as typically developing toddlers. Toddlers from 10 to 20 months with limited vocalizations or words and typically developing toddlers may be eligible to participate. Call 1-866-444-2214 (TTY 1-866-411-1010). Refer to study 11-M-0144.

Midlife & Menopause Research Studies

Women ages 40-60 who struggle with irritability, anxiety, sadness or loss of enjoyment at the time of the menopause transition are invited to participate in outpatient research studies. There is no cost for participation. Compensation may be provided. Call (301) 496-9576 and refer to study 02-M-0120.

Asthma Research Volunteers

Individuals 18 years or older with asthma are sought to participate in a 1- to 2-day research study in the Cardiovascular and Pulmonary Branch at the National Institutes of Health. A thorough medical evaluation and monetary compensation will be provided. If interested, call (301) 402-1553.

Women's Health Studies Seek Healthy Volunteers

Healthy women ages 40-60 are invited to participate in outpatient research studies. Compensation is provided. Call (301) 496-9576.

seen

Night at Circus Draws Happy Crowd

The 16th annual Children's Premiere Night with Ringling Bros. and Barnum & Bailey Circus on Mar. 20 drew the event's largest crowd in the past 10 years, according to R&W President Randy Schools, whose organization sponsors the occasion.

"It's hard to believe it's been 16 years of entertaining children and families on our special NIH R&W Night at the circus," he said. "We had a successful fundraising night for the NIH charities and we treated over 2,500 children and families to a night of fun."

Among the guests were NIH director Dr. Francis Collins and his wife Diane Baker and NICHD director Dr. Alan Guttmacher and his wife Brigid. The children came from a variety of programs in the community such as family shelters, Children's National Medical Center, at-risk youth in the local YMCA, Georgetown and Howard University Hospitals, county school programs and more.

"In addition to providing a wonderful night of entertainment for community families, we also sent many families from our NIH charities—Special Love, the Children's Inn and Friends of the Clinical Center—to the show," said Schools. "Thank you on behalf of the charities to all who support the NIH R&W Night at the circus. We hope you will join us for this special evening again next year."

Surrounded by performers from the Greatest Show on Earth are Children's Inn guests Alexis Lato (l) and her mother Elise Lato. Almost 9,000 people attended Children's Premiere Night on Mar. 20.

At left, a circus clown visits Benjamin Milling in the inpatient playroom at the Clinical Research Center. At right, schmoozing with the circus cast are (from l) Michella Coleman, Tyree Terry, Darnell Coleman and Tony Terry of the CRC's 1NW staff.

PHOTOS: ERNIE BRANSON, MICHAEL SPENCER